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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,090	07/23/2001	Philip B. Romanik		4011

7590 03/09/2006

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EXAMINER	
GOLD, AVI M	

ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/911,090	ROMANIK ET AL.	
	Examiner	Art Unit	
	Avi Gold	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to the amendment filed on November 21, 2005. Claims 14-18 were added. Claims 1-18 are pending.

Response to Amendment

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2, 4-9, and 12-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka, U.S. Patent No. 6,564,256, further in view of Dobbelstein, U.S. Patent No. 5,881,269.

Tanaka teaches the invention substantially as claimed including an image transfer system which transfers medical image data on a DICOM (Digital Imaging and Communication in Medicine) standard communication system (see abstract).

Regarding claims 1 and 14, Tanaka teaches a system for transmitting digital image signals from a client device to a server device, comprising:

establishing a connection between one or more client devices and server device (col. 5, lines 33-40, Tanaka discloses terminals and image servers transferring data);

optionally making a copy of the image to free up system resources on the client;

placing a copy of the image in a client queue if the image cannot be transmitted immediately (col. 5, lines 47-55, Tanaka discloses a relay server accumulating pieces of the image data before it goes to the archiver);

measuring the client resource availability of local resources and available processor time and maintaining historical information and trends (col. 6, lines 49-56, col. 10, lines 4-15);

measuring the status and performance of the network connecting the client device and server device, and maintaining historical information and trends (col. 6, lines 49-56, col. 10, lines 4-15, Tanaka discloses checking if the transfer of data is at high efficiency, checking if any of the servers fail, and taking care of the failure if it exists);

reducing the size of images to conserve storage space in the queue or to reduce transmission time between the client and server (col. 10, lines 53-65, Tanaka discloses reducing the size of an image if it is too large);

transferring the image from the client device to the server device as a digital signal (col. 5, lines 33-46, Tanaka discloses image data transferred between terminals and servers);

persisting the image on the server device until it is processed or saved (col. 6, lines 49-56, col. 10, lines 4-15).

Tanaka fails to teach the limitation further including increasing the size of the client queue if it becomes full.

However, Dobbelstein teaches emulation of multiple local area network clients in a single workstation to test the capacity of a server program (see abstract). Dobbelstein teaches the use of the dynamic adjustment of the depth of a queue (col. 8, lines 53-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka in view of Dobbelstein to increase the size of the client queue if it becomes full. One would be motivated to do so because it allows for a client request to avoid failure (col. 8, lines 61-63).

Regarding claims 2 and 15, Tanaka teaches a system according to claims 1 and 14, wherein the step of increasing the size of the client queue includes an upper limit to prevent the queue from growing beyond a specified size (col. 10, lines 18-52, Tanaka discloses using only a certain amount of protocol conversion severs).

Regarding claim 4, Tanaka teaches a system according to claim 1, wherein the step of transferring the image signal from the client to the server can comprise:

transmitting image data from one or more clients to a gateway server, such that the clients consider the gateway server to be a server;

buffering the image data on the gateway server;

transmitting image data from the gateway server to the server, such that the server considers the gateway server to be a client (col. 5, lines 33-55, col. 6, lines 49-56, col. 10, lines 4-52).

Regarding claims 5 and 16, Tanaka teaches a system according to claims 1 and 14, wherein the step of reducing the size of an image comprises:

selecting one or more reduction methods to reduce the image size from a plurality of lossless or lossy compression methods;

reducing the current image, or any image in the queue when the queue becomes full;

periodically reducing the size of the images in the queue, using reduction methods when processor resources are available (col. 10, lines 53-65).

Regarding claims 6 and 17, Tanaka teaches a system according to claims 5 and 16, wherein the step of selecting one of more reduction methods comprises:

estimating the reduction in image size possible for a specific reduction method;

estimating the cost of this reduction where the cost includes the resources required for reduction as well as the time to reduce the image;

performing the reduction if the cost is allowable and the reduction is considered meaningful;

evaluating other reduction methods if the desired amount of reduction has not been achieved (col. 10, lines 53-65).

Regarding claims 7 and 18, Tanaka teaches a system according to claims 6 and 17, wherein the step of determining if the cost is allowable comprises:

checking the current system resources to see if sufficient resources and time are available to reduce the image;

checking historical system resources and trends to estimate future resource availability;

checking the current network parameters such as available bandwidth and throughput;

checking historical network conditions and trends to estimate future network conditions (col. 6, lines 49-56, col. 10, lines 4-15).

Regarding claim 8, Tanaka teaches a system according to claim 1, wherein the step of transferring the image signal from the client device to the server device comprises:

storing the received image in a server queue or on a networked file system;

increasing the size of the server queue if it becomes full (col. 10, lines 18-39);

reducing the size of images to conserve storage space in the queue or to reduce storage requirements in the image database (col. 10, lines 53-65).

Regarding claim 9, Tanaka teaches a system according to claim 8, wherein the step of increasing the size of the server queue includes an upper limit to prevent the queue from growing beyond a specified size (col. 10, lines 18-52).

Regarding claim 12, Tanaka teaches a system for transmitting digital image signals from a client device to a server device, comprising:

establishing a connection between one or more client devices and server device (col. 5, lines 33-40);

optionally making a copy of the image to free up system resources on the client (col. 5, lines 47-55);

dividing the available network bandwidth between the client and server into one or more pieces and assigning certain images to be transmitted using these reserved channels (col. 5, lines 47-55, Tanaka discloses using different relay servers and piecing the image);

placing a copy of the image in a client queue if the image cannot be transmitted immediately (col. 5, lines 47-55);

measuring the client resource availability of local processor resources and available processor time, and maintaining historical information and trends;

measuring the status and performance of the network connecting the client device and server device, and maintaining historical information and trends (col. 6, lines 49-56, col. 10, lines 4-15);

reducing the size of images to conserve storage space in the queue or reduce transmission time between the client and server (col. 10, lines 53-65);

transferring the image from the client device to the server device (col. 5, lines 33-46);

persisting the image on the server device until it is processed or saved (col. 6, lines 49-56, col. 10, lines 4-15).

Tanaka fails to teach the limitation further including increasing the size of the client queue if it becomes full.

However, Dobbelstein teaches the use of the dynamic adjustment of the depth of a queue (col. 8, lines 53-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka in view of Dobbelstein to increase the size of the client queue if it becomes full. One would be motivated to do so because it allows for a client request to avoid failure (col. 8, lines 61-63).

Regarding claim 13, Tanaka teaches a system according to claim 12, wherein the step of reserving network bandwidth comprising:

specifying the mapping of image type to a reserved piece of network bandwidth;

using any remaining, unreserved network bandwidth for images that do not have any defined mapping;

allocating a separate queue for each piece of network bandwidth or allocating elements from a single queue;

identifying the type of image and routing this image to the appropriate piece of network bandwidth or queue (col. 9, lines 1-37, Tanaka discloses using different servers for different types of image data).

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka and Dobbelstein further in view of Glass et al., U.S. Patent No. 6,332,193.

Tanaka teaches the invention substantially as claimed including an image transfer system which transfers medical image data on a DICOM (Digital Imaging and Communication in Medicine) standard communication system (see abstract). Dobbelstein teaches the invention substantially as claimed including the emulation of multiple local area network clients in a single workstation to test the capacity of a server program (see abstract).

As to claim 3, Tanaka and Dobbelstein teach the method of claim 1.

Tanaka and Dobbelstein fail to teach the limitation further including the step of transferring the signal from the client to the server can include encrypting the information on the client prior to transmission and decrypting the data once it is received by the server.

However, Glass teaches the transmission of unprocessed biometric data from a camera or other sensor to a server at a remote location over a network in a secure manner (see abstract). Glass teaches the use of encrypting data on the client and decrypting the data on the server (col. 10, lines 59-66).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka and Dobbelstein in view of Glass to use encryption and decryption on the client and server. One would be motivated to do so because it allows for the secure transfer of data.

4. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka and Dobbelstein further in view of Lopresti, U.S. Patent No. 6,298,173.

Tanaka teaches the invention substantially as claimed including an image transfer system which transfers medical image data on a DICOM (Digital Imaging and Communication in Medicine) standard communication system (see abstract). Dobbelstein teaches the invention substantially as claimed including the emulation of multiple local area network clients in a single workstation to test the capacity of a server program (see abstract).

As to claim 10, Tanaka and Dobbelstein teach the method of claim 8.

Tanaka and Dobbelstein fail to teach the limitation further including selecting one or more reduction methods to reduce the image size from a plurality of lossless or lossy compression methods and using lossless compression methods when processor resources are available.

However, Lopresti teaches a method of managing storage in a document image database using document analysis to partition documents into logical regions and document reduction means for reducing storage size of the regions according to various storage preference rules (see abstract). Lopresti teaches reduction of image size from lossless and lossy compression methods and the use of lossless compression methods (col. 6, line 57 – col. 7, line 45).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Tanaka and Dobbelstein in view of Lopresti to select one or more

reduction methods to reduce the image size from a plurality of lossless or lossy compression methods and to use lossless compression methods. One would be motivated to do so because it allows for good data compression performance.

Regarding claim 11, Tanaka and Dobbelstein teach a system according to claim 10, wherein the step of selecting one of more reduction methods comprises:

estimating the reduction in image size possible for a specific reduction method;

estimating the cost of this reduction where the cost includes the resources required for reduction as well as the time to reduce the image;

performing the reduction if the cost is allowable and the reduction is considered meaningful;

evaluating other reduction methods if the desired amount of reduction has not been achieved (col. 10, lines 53-65).

Response to Arguments

5. Applicant's arguments filed November 21, 2005 have been fully considered but they are not persuasive.

Regarding the argument to claim 1, the applicant argues that the reference, Tanaka, does not disclose placing a copy of the image in a client queue. The examiner disagrees, as seen in, column 5, lines 47-55, there is a relay server accumulating pieces of image data before it goes to the archiver with the cache serving the same function as the queue in the present claims.

6. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., claim 1 arguments) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

7. In response to applicant's arguments, for claim 1, against the references (Tanaka and Dobbelstein) individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

8. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 5,179,651 to Taaffe et al.

U.S. Pat. No. 5,845,018 to Breish

U.S. Pat. No. 6,388,687 to Brackett et al.

U.S. Pat. No. 6,564,225 to Brogliatti et al.

U.S. Pat. No. 5,706,457 to Dwyer et al.

U.S. Pat. No. 5,359,512 to Nishihara

U.S. Pat. No. 5,187,750 to Behera

U.S. Pat. No. 6,519,632 to Brackett et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Avi Gold whose telephone number is 571-272-4002. The examiner can normally be reached on M-F 8:00-5:30 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Avi Gold

Patent Examiner

Art Unit 2157

AMG

ARIO ETIENNE
PRIMARY EXAMINER